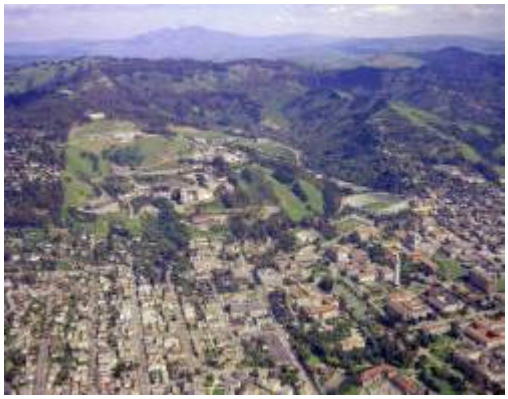

Lawrence Berkeley National Laboratory (LBNL)

Site Description: LBNL is a multi-program national laboratory located on 200 hillside acres adjacent to the University of California, Berkeley, across the bay from San Francisco. LBNL's infrastructure includes classical laboratory buildings, office space, and major research facilities conducting unclassified work.

Mission: LBNL's principal role for the Department of Energy (DOE) is fundamental science, including developing powerful experimental and computational systems for exploring properties of matter, molecular interactions and synthesis, and for gaining insight into molecules, cells, and tissues. LBNL is a major contributor of research on energy resources, including the earth's structure and energy reservoirs, fusion, combustion of fuels, and keys to efficient energy storage and use. It is also involved in environmental research, including subsurface contaminant transport, bioremediation, and indoor air quality. LBNL has partnerships with industry, universities, and government laboratories, including the Joint Genome Institute, and advanced accelerator and detector systems, x-ray lithography, high-speed networking and computer architectures, building and lighting systems, and science education.

Management: The lead program secretarial office is the Office of Science (SC). LBNL projects are also funded by the Offices of Energy Efficiency and Renewable Energy (EE), Defense Programs (DP), Environmental Management (EM), Civilian Radioactive Waste (RW), and Nonproliferation and National Security (NN). Contract activities are managed by Berkeley Site Office (BSO) staff from the Oakland Operations Office (OAK). The University of California is the management and operating contractor. The 4,100 full-time and part-time employees, including about 600 students, are joined annually by 2,000 visiting scientists and other guests. Approximately 12 DOE personnel are employed at LBNL.

Budget: Annual budgets for FY 1999 and FY 2000 are $346.1 and $390.5 million, respectively.

Integrated Safety Management (ISM) Implementation Status: The ISM description was approved by OAK in July 1998. Phase I validation of ISM implementation, defining the scope of the site's ISM systems and implementation procedures, was ready in July 1998. LBNL established an interactive verification process for the institutional ISM plan, as well as an internal process for line management involvement in the development of division-specific ISM plans. Phase I verification was subsequently completed. During Phase I, the ISM plan was integrated into health and safety publications; Laboratory policies and procedures; the site's Environmental Health and Safety Web site; technical programs (e.g., radiation protection, biosafety, chemical hygiene); and the Laboratory self-assessment program. Phase II verification of the ISM implementation practices was completed in March 1999. The Phase II verification team noted that LBNL has a good foundation for ISM implementation, but recommended improvements in reinforcing line management accountability, worker training, and hazard documentation. Efforts are under way to enhance these aspects of ISM across the Laboratory. Line management accountability is being reinforced in performance reviews and within ISM program documentation at the division level. The employee training program is being further tailored and integrated with work by giving line managers/supervisors options to identify required safety training either by completing an institutional Web-based job hazards questionnaire or by supervisors' developing a tailored set of safety training requirements. Guidance on hazard assessment review and authorization is being revised in LBNL's Health and Safety Manual (PUB 3000). Hazard assessment data is being managed through the Integrated Hazard Assessment electronic database.

Significant Events: No significant environment, safety, and health events have been reported at LBNL over the past two years.

Key Facilities

Facility Name	Mission /Status	Principal Hazards
Accelerators:	Accelerate beams of particles	Electrical, radiation, chemicals, and lasers.
Advanced Light Source (ALS)	Synchrotron light source that accelerates and stores a beam of electrons at 1.9 GeV. One of the world's brightest sources of ultraviolet light and soft x-rays, and a powerful source of higher energy x-rays. Serves as an excellent probe of the electronic properties of atoms, molecules, surfaces and condensed matter, and a powerful tool for determining the structure of macromolecules. 690 scientists utilized the ALS in FY 1998. Status: Operating.	
88-inch Cyclotron	Accelerates beams of a variety of particles, ranging from hydrogen to uranium. Produces the widest range of high-intensity and heavy ions in the U.S. for nuclear science. Hosts more than 200 users. Status: Operating.	
National Center for Electron Microscopy (NCEM)	Houses several of the world's most advanced microscopes and tools for microcharacterization of materials. These include the One Angstrom, High-Voltage, Spin Polarized Low Energy, and Atomic Resolution Electron Microscopes. The facility hosted 220 users in FY 1998. Status: Operating.	Electrical.
National Energy Research Scientific Computing Center (NERSC)	Provides leading-edge computational resources, science and services and the national network (Esnet) for the scientific community. 3150 scientists used NERSC in FY 1998. Status: Operating.	Electrical and normal office hazards.
Biomedical Isotope Facility	Provides short-lived tracers for high resolution Positron Emission Tomography medical imaging. Status: Operating.	Radiation, electrical, and chemical.
National Tritium Labeling Facility (NTLF)	Conducts research and supplies educational and tritium labeling support for biomedical and health researchers in North America. Offers the global biomedical research community a fully equipped laboratory for the synthesis and analysis of tritium-labeled compounds. Status: Operating.	Radiation, electrical, and exposure to hazardous chemicals and biomedical compounds.
Joint Genome Institute (JGI) Production Sequencing Facility (PSF)	Aims to provide a significant cost-effective contribution to global efforts in sequencing the human genome by 2003 and to leverage this information toward better understanding of its functional implications. The JGI is composed of Genome Centers at LBNL, Los Alamos and Lawrence Livermore National Laboratories, and the PSF in Walnut Creek, CA, where production sequencing is performed. Status: Operating.	Electrical, chemical, ergonomic, and mechanical.

For the Berkeley Site Manager's Office, contact (510)-486-4345